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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,771	04/12/2006	Cornelis Johannes Adrianus Schetters	NL03 1227 US	3541
65913	7590	02/01/2010		
NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER BEHM, HARRY RAYMOND	
			ART UNIT 2838	PAPER NUMBER
			NOTIFICATION DATE 02/01/2010	DELIVERY MODE ELECTRONIC

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Applicant's arguments filed 1/18/10 have been fully considered but they are not persuasive. Applicant reiterates limitations not explicitly mentioned by reference Balakrishnan (US 6,813,168). In response to applicant's arguments against the reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant contends the rejection is unclear whether the proposed modification would incorporate merely C41 in parallel with rectifier circuit 600 of Balakrishnan, or whether additional components such as C42 and C46 of the π filter would also be incorporated. Examiner contends it would have been obvious at the time of the invention to add filtering capacitors between a rectifier and switched mode power supply and claim 1 would read upon either incorporation, as well as additional filtering combinations.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Saleh teaches both π filtering and placing a non-electrolytic cap in parallel with an electrolytic. Furthermore, it was known to add filtering capacitors to remove noise and smooth ripple and would have been obvious to add additional filtering as needed for noisy environments or for sensitive loads. One of ordinary skill would have known and been motivated to provide additional filtering if the filters disclosed by Balakrishnan or Saleh proved inadequate for an application.

Applicant states the references provide no indication the filtering would provide a benefit with a half wave rectifier. However, filtering was well known at the time of the invention to remove undesirable high frequency components and to reduce ripple and would remove undesirable high frequency components and ripple regardless of the rectifier used.

Applicant argues the Balakrishnan reference teaches away from the use of filtering. On the contrary, Balakrishnan ('168) teaches it was well known to use filtering and the pi filter can be used to reduce costs "Known power supply techniques employ input EMI filter circuits of varying complexity. The simplest form of input EMI filter is known as a pi filter and is used in low-power power supplies to reduce power supply cost" (Balakrishnan column 1, lines 26-29).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

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not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). At the time of the invention, the use of capacitors as filter elements was well known. Since a non-electrolytic capacitor will inherently filter high frequency components it would have been obvious to add additional capacitance to filter high frequency components. The test for obviousness is not whether the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant argues against the rejection of claim 7 since the integrated power switch might not work with a half wave rectifier. While there would be increased ripple with a half wave rectifier, which is to say the voltage would dip slightly lower, this would not be expected to lead to an undue increase in heating. As the combination would have better than a reasonable expectation of success, the rejection must be maintained.

Applicant argues against the rejection of claim 2 that one would not experiment with the capacitance value of the filter. However, the capacitance is an integral part of the filter and one of ordinary skill would be recognize it as a critical value to be optimized.